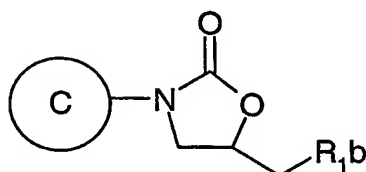


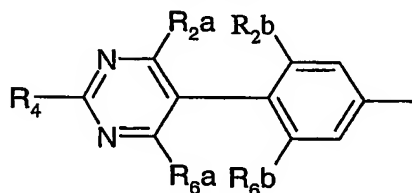
Claims

1. A compound of the formula (I), or a pharmaceutically-acceptable salt, or an in-vivo-hydrolysable ester thereof,

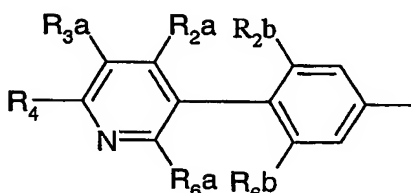


(I)

wherein C is selected from D and E,



D



E

10 wherein in D and E the phenyl ring is attached to the oxazolidinone in (I);

R_{1b} is -X-Z wherein X is O or S; and wherein

Z is HET-1 wherein

HET-1 is selected from HET-1A and HET-1B:

HET-1A is a C-linked 5-membered heteroaryl ring containing 2 to 4 heteroatoms

15 independently selected from N, O and S; which ring is optionally substituted on a C atom by an oxo or thioxo group; and/or which ring is optionally substituted on any available C atom by one or two substituents selected from RT as hereinafter defined and/or on an available nitrogen atom, (provided that the ring is not thereby quaternised) by (1-4C)alkyl;

HET-1B is a C-linked 6-membered heteroaryl ring containing 2 or 3 nitrogen heteroatoms,

20 which ring is optionally substituted on a C atom by an oxo or thioxo group; and/or which ring is optionally substituted on any available C atom by one, two or three substituents selected from RT as hereinafter defined and/or on an available nitrogen atom, (provided that the ring is not thereby quaternised) by (1-4C)alkyl;

25 RT is selected from a substituent from the group:

(RTa1) hydrogen, halogen, (1-4C)alkoxy, (2-4C)alkenyloxy, (2-4C)alkenyl, (2-4C)alkynyl, (3-6C)cycloalkyl, (3-6C)cycloalkenyl, (1-4C)alkylthio, amino, azido, cyano

and nitro; or

(RTa2) (1-4C)alkylamino, di-(1-4C)alkylamino, and (2-4C)alkenylamino;

or RT is selected from the group

(RTb1) (1-4C)alkyl group which is optionally substituted by one substituent selected

5 from hydroxy, (1-4C)alkoxy, (1-4C)alkylthio, cyano and azido; or

(RTb2) (1-4C)alkyl group which is optionally substituted by one substituent selected from (2-4C)alkenyloxy, (3-6C)cycloalkyl, and (3-6C)cycloalkenyl;

or RT is selected from the group

(RTc) a fully saturated 4-membered monocyclic ring containing 1 or 2 heteroatoms

10 independently selected from O, N and S (optionally oxidised), and linked via a ring nitrogen or carbon atom;

and wherein at each occurrence of an RT substituent containing an alkyl, alkenyl, alkynyl, cycloalkyl or cycloalkenyl moiety in (RTa1) or (RTa2), (RTb1) or (RTb2), or (RTc) each such moiety is optionally substituted on an available carbon atom with one, two, three or more

15 substituents independently selected from F, Cl, Br, OH and CN;

R_{2a} and R_{6a} are independently selected from H, CF₃, OMe, SMe, Me and Et;

R_{2b} and R_{6b} are independently selected from H, F, Cl, CF₃, OMe, SMe, Me and Et;

R_{3a} is selected from H, (1-4C)alkyl, cyano, Br, F, Cl, OH, (1-4C)alkoxy, -S(O)_n(1-4C)alkyl (wherein n = 0, 1, or 2), amino, (1-4C)alkylcarbonylamino, nitro, -CHO, -CO(1-4C)alkyl,

20 -CONH₂ and -CONH(1-4C)alkyl;

R₄ is selected from R_{4a} and R_{4b} wherein

R_{4a} is selected from azido, -NR₇R₈, OR₁₀, (1-4C)alkyl, (1-4C)alkoxy, (3-6C)cycloalkyl, -(CH₂)_k-R₉, AR₁, AR₂, (1-4C)alkanoyl, -CS(1-4C)alkyl, -C(=W)NR_vR_w [wherein W is O or S, R_v and R_w are independently H, or (1-4C)alkyl], -(C=O)_l-R₆, -COO(1-4C)alkyl,

25 -C=OAR₁, -C=OAR₂, -COOAR₁, -S(O)_n(1-4C)alkyl (wherein n = 1 or 2), -S(O)_pAR₁, -S(O)_pAR₂ and -C(=S)O(1-4C)alkyl; wherein any (1-4C)alkyl chain may be optionally substituted by (1-4C)alkyl, cyano, hydroxy or halo; p = 0, 1 or 2;

R_{4b} is selected from HET-3;

R₆ is selected from hydrogen, (1-4C)alkoxy, amino, (1-4C)alkylamino and

30 hydroxy(1-4C)alkylamino;

k is 1 or 2;

l is 1 or 2;

R₇ and R₈ are independently selected from H and (1-4C)alkyl, or wherein R₇ and R₈ taken

together with the nitrogen to which they are attached can form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)_n (wherein n = 1 or 2) in place of 1 carbon atom of the so formed ring; wherein the ring may be optionally substituted by one or two groups independently selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, -S(O)_n(1-4C)alkyl (wherein n = 1 or 2), AR1, AR2, , -C=OAR1, -C=OAR2, -COOAR1, -CS(1-4C)alkyl, -C(=S)O(1-4C)alkyl, -C(=W)NR_vR_w [wherein W is O or S, R_v and R_w are independently H, or (1-4C)alkyl], -S(O)_pAR1 and -S(O)_pAR2; wherein any (1-4C)alkyl, (3-6C)cycloalkyl or (1-4C)alkanoyl group may be optionally substituted (except on a carbon atom adjacent to a heteroatom) by one or two substituents selected from (1-4C)alkyl, cyano, hydroxy, halo, amino, (1-4C)alkylamino and di(1-4C)alkylamino;

p = 0, 1 or 2;

R₉ is independently selected from R_{9a} to R_{9d} below:

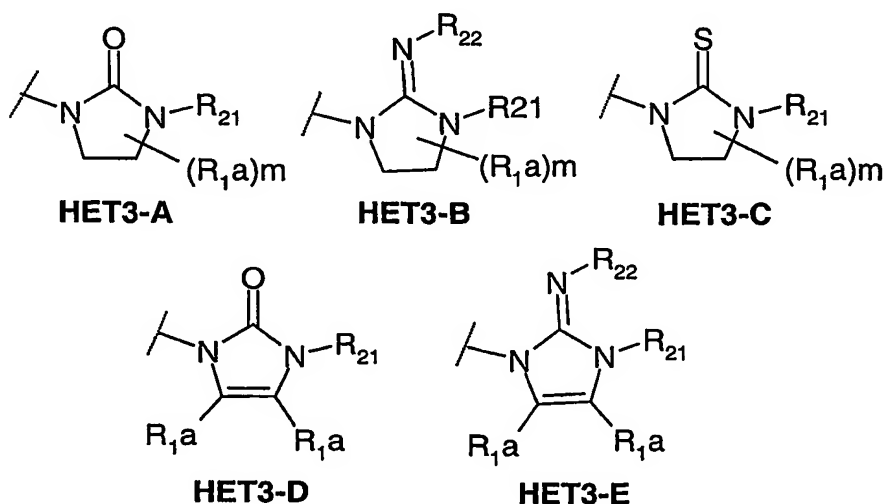
R_{9a}: AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4, AR4a, CY1, CY2;

R_{9b}: cyano, carboxy, (1-4C)alkoxycarbonyl, -C(=W)NR_vR_w [wherein W is O or S, R_v and R_w are independently H, or (1-4C)alkyl and wherein R_v and R_w taken together with the amide or thioamide nitrogen to which they are attached can form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)_n in place of 1 carbon atom of the so formed ring; wherein when said ring is a piperazine ring, the ring may be optionally substituted on the additional nitrogen by a group selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, -S(O)_n(1-4C)alkyl (wherein n = 1 or 2), -COOAR1, -CS(1-4C)alkyl and -C(=S)O(1-4C)alkyl; wherein any alkyl, acyl or cycloalkyl may itself optionally be substituted by cyano, hydroxy or halo], ethenyl, 2-(1-4C)alkylethenyl, 2-cyanoethenyl, 2-cyano-2-((1-4C)alkyl)ethenyl, 2-nitroethenyl, 2-nitro-2-((1-4C)alkyl)ethenyl, 2-((1-4C)alkylaminocarbonyl)ethenyl, 2-((1-4C)alkoxycarbonyl)ethenyl, 2-(AR1)ethenyl, 2-(AR2)ethenyl, 2-(AR2a)ethenyl;

R_{9c}: (1-6C)alkyl

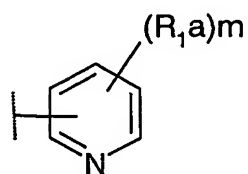
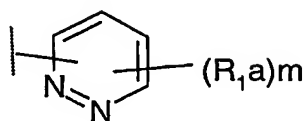
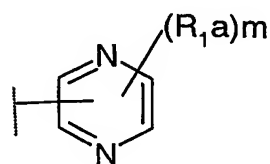
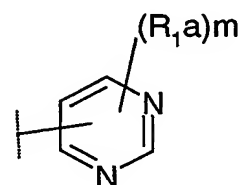
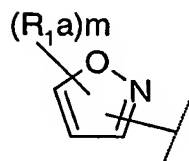
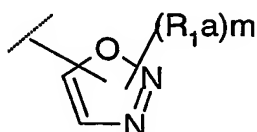
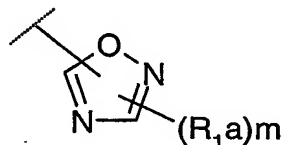
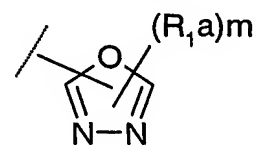
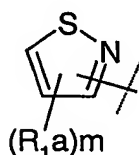
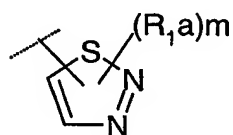
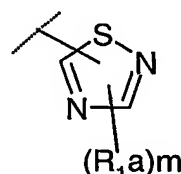
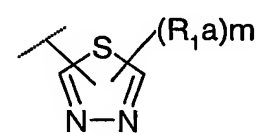
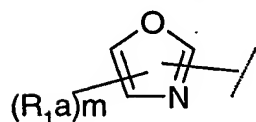
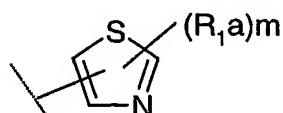
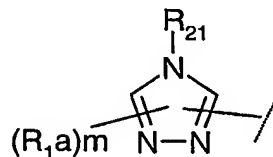
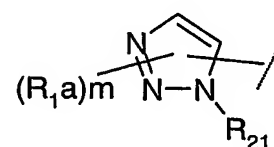
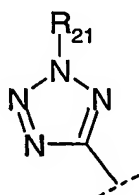
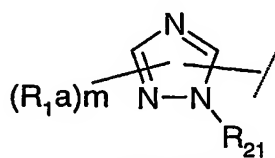
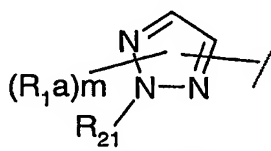
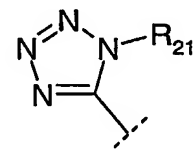
{ optionally substituted by one or more groups (including geminal disubstitution) each independently selected from hydroxy, (1-10C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkylcarbonyl, phosphoryl [-O-P(O)(OH)₂, and mono- and di-(1-4C)alkoxy derivatives thereof], phosphiryl [-O-P(OH)₂ and mono- and di-(1-4C)alkoxy derivatives thereof], and amino; and/or optionally substituted by one group selected from carboxy, phosphonate [phosphono, -P(O)(OH)₂, and mono- and

- di-(1-4C)alkoxy derivatives thereof], phosphinate [-P(OH)₂ and mono- and di-(1-4C)alkoxy derivatives thereof], cyano, halo, trifluoromethyl, (1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkylamino, di((1-4C)alkyl)amino, (1-6C)alkanoylamino-, (1-4C)alkoxycarbonylamino-, N-(1-4C)alkyl-
 5 N-(1-6C)alkanoylamino-, -C(=W)NR_vR_w [wherein W is O or S, R_v and R_w are as hereinbefore defined], (=NOR_v) wherein R_v is as hereinbefore defined, (1-4C)alkylS(O)_pNH-, (1-4C)alkylS(O)_p-((1-4C)alkyl)N-, fluoro(1-4C)alkylS(O)_pNH-, fluoro(1-4C)alkylS(O)_p((1-4C)alkyl)N-, (1-4C)alkylS(O)_q-, CY1, CY2, AR1, AR2, AR3, AR1-O-, AR2-O-, AR3-O-, AR1-S(O)_q-, AR2-S(O)_q-, AR3-S(O)_q-, AR1-NH-, AR2-NH-,
 10 AR3-NH- (p is 1 or 2 and q is 0, 1 or 2), and also AR2a, AR2b, AR3a and AR3b versions of AR2 and AR3 containing groups}; wherein any (1-4C)alkyl present in any substituent on R_{9c} may itself be substituted by one or two groups independently selected from cyano, hydroxy, halo, amino, (1-4C)alkylamino and di(1-4C)alkylamino, provided that such a substituent is not on a carbon adjacent to a heteroatom atom if present;
- 15 R_{9d}: R₁₄C(O)O(1-6C)alkyl- wherein R₁₄ is AR1, AR2, (1-4C)alkylamino, benzyloxy-(1-4C)alkyl or (1-10C)alkyl {optionally substituted as defined for (R_{9c})};
 R₁₀ is selected from hydrogen, R_{9c} (as hereinbefore defined), (1-4C)alkanoyl and (1-4C)alkylsulfonyl;
 HET-3 is selected from:
- 20 a) a 5-membered heterocyclic ring containing at least one nitrogen and/or oxygen in which any carbon atom is a C=O, C=N, or C=S group, wherein said ring is of the formula HET3-A to HET3-E below:

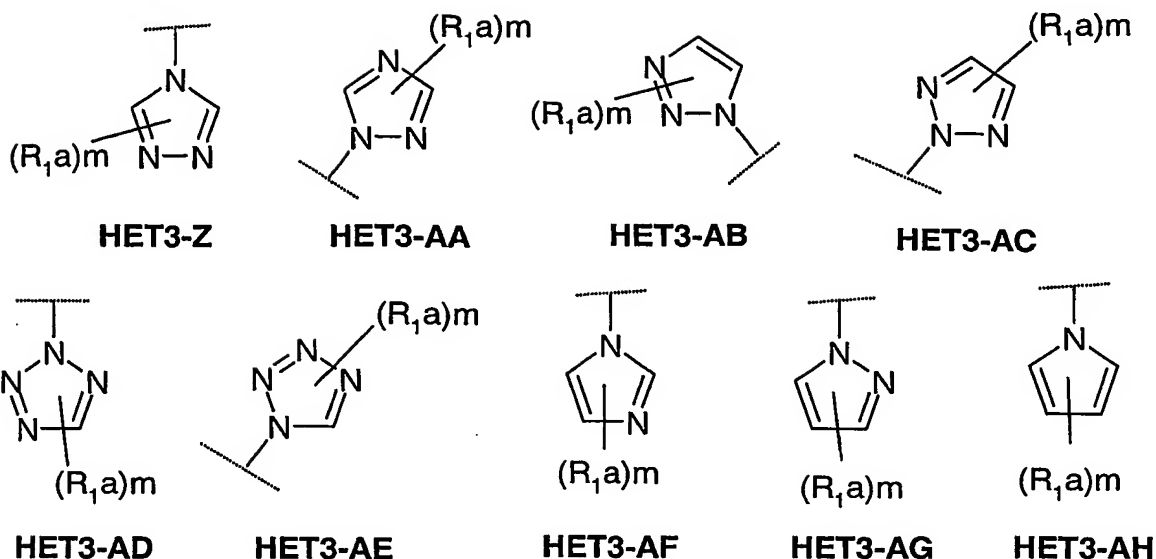


- b) a carbon-linked 5- or 6-membered heteroaromatic ring containing 1, 2, 3, or 4 heteroatoms

independently selected from N, O and S selected from HET3-F to HET3-Y below:

**HET3-F****HET3-G****HET3-H****HET3-I****HET3-J****HET3-K****HET3-L****HET3-M****HET3-N****HET3-O****HET3-P****HET3-Q****HET3-R****HET3-S****HET3-T****HET3-U****HET3-V****HET3-W****HET3-X****HET3-Y**

- 5 c) a nitrogen-linked 5- or 6-membered heteroaromatic ring containing 1, 2, 3, or 4 heteroatoms independently selected from N, O and S selected from HET3-Z to HET3-AH below:



wherein in HET-3, R_{1a} is a substituent on carbon;

R_{1a} is independently selected from R_{1a1} to R_{1a5} below:

- 5 R_{1a1} : AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4, AR4a, CY1, CY2;
- R_{1a2} : cyano, carboxy, (1-4C)alkoxycarbonyl, $-C(=W)NR_vR_w$ [wherein W is O or S, R_v and R_w are independently H, or (1-4C)alkyl and wherein R_v and R_w taken together with the amide or thioamide nitrogen to which they are attached can form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O) $_n$ in place of 1 carbon atom
- 10 of the so formed ring; wherein when said ring is a piperazine ring, the ring may be optionally substituted on the additional nitrogen by a group selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, $-COO(1-4C)alkyl$, $-S(O)_n(1-4C)alkyl$ (wherein $n = 1$ or 2), $-COOAR_1$, $-CS(1-4C)alkyl$ and $-C(=S)O(1-4C)alkyl$; wherein any (1-4C)alkyl, (1-4C)alkanoyl and (3-6C)cycloalkyl substituent may itself be substituted by cyano, hydroxy or halo, provided
- 15 that, such a substituent is not on a carbon adjacent to a nitrogen atom of the piperazine ring], ethenyl, 2-(1-4C)alkylethenyl, 2-cyanoethenyl, 2-cyano-2-((1-4C)alkyl)ethenyl, 2-nitroethenyl, 2-nitro-2-((1-4C)alkyl)ethenyl, 2-((1-4C)alkylaminocarbonyl)ethenyl, 2-((1-4C)alkoxycarbonyl)ethenyl, 2-(AR1)ethenyl, 2-(AR2)ethenyl, 2-(AR2a)ethenyl;
- R_{1a3} : (1-10C)alkyl
- 20 {optionally substituted by one or more groups (including geminal disubstitution) each independently selected from hydroxy, (1-10C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxy, (1-4C)alkylcarbonyl, phosphoryl [$-O-P(O)(OH)_2$, and mono- and di-(1-4C)alkoxy derivatives thereof], phosphiryl [$-O-P(OH)_2$ and mono- and

- di-(1-4C)alkoxy derivatives thereof], and amino; and/or optionally substituted by one group selected from carboxy, phosphonate [phosphono, $-P(O)(OH)_2$, and mono- and di-(1-4C)alkoxy derivatives thereof], phosphinate [$-P(OH)_2$ and mono- and di-(1-4C)alkoxy derivatives thereof], cyano, halo, trifluoromethyl, (1-4C)alkoxycarbonyl, (1-4C)alkoxy-
- 5 (1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkylamino, di((1-4C)alkyl)amino, (1-6C)alkanoylamino-, (1-4C)alkoxycarbonylamino-, N-(1-4C)alkyl-N-(1-6C)alkanoylamino-, $-C(=W)NR_vR_w$ [wherein W is O or S, R_v and R_w are independently H, or (1-4C)alkyl and wherein R_v and R_w taken together with the amide or thioamide nitrogen to which they are attached can form a 5-7 membered ring optionally with
- 10 an additional heteroatom selected from N, O, $S(O)_n$ in place of 1 carbon atom of the so formed ring; wherein when said ring is a piperazine ring, the ring may be optionally substituted on the additional nitrogen by a group selected from (1-4C)alkyl, (3-6C)cycloalkyl, (1-4C)alkanoyl, $-COO(1-4C)alkyl$, $-S(O)_n(1-4C)alkyl$ (wherein $n = 1$ or 2), $-COOAR_1$, $-CS(1-4C)alkyl$ and $-C(=S)O(1-4C)alkyl$, $(=NOR_v)$ wherein R_v is as hereinbefore defined,
- 15 (1-4C)alkyl $S(O)_pNH-$, (1-4C)alkyl $S(O)_p((1-4C)alkyl)N-$, fluoro(1-4C)alkyl $S(O)_pNH-$, fluoro(1-4C)alkyl $S(O)_p((1-4C)alkyl)N-$, (1-4C)alkyl $S(O)_q-$, CY1, CY2, AR1, AR2, AR3, AR1-O-, AR2-O-, AR3-O-, AR1- $S(O)_q-$, AR2- $S(O)_q-$, AR3- $S(O)_q-$, AR1-NH-, AR2-NH-, AR3-NH- (p is 1 or 2 and q is 0, 1 or 2), and also AR2a, AR2b, AR3a and AR3b versions of AR2 and AR3 containing groups}; wherein any (1-4C)alkyl, (1-4C)alkanoyl and (3-
- 20 6C)cycloalkyl present in any substituent on R_{1a3} may itself be substituted by one or two groups independently selected from cyano, hydroxy, halo, amino, (1-4C)alkylamino and di(1-4C)alkylamino, provided that such a substituent is not on a carbon adjacent to a heteroatom atom if present;
- R_{1a4} : $R_{14}C(O)O(1-6C)alkyl-$ wherein R_{14} is as hereinbefore defined for R_9 ;
- 25 R_{1a5} : F, Cl, hydroxy, mercapto, (1-4C)alkyl $S(O)_p-$ ($p = 0, 1$ or 2), $-NR_7R_8$ (wherein R_7 and R_8 are as hereinbefore defined) or $-OR_{10}$ (where R_{10} is as hereinbefore defined); m is 0, 1 or 2;
- R_{21} is selected from hydrogen, methyl [optionally substituted with cyano, trifluoromethyl, $-C=WNR_vR_w$ (where W, R_v and R_w are as hereinbefore defined for R_{1a3}),
- 30 (1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxycarbonyl, (1-4C)alkoxy-(1-4C)alkoxy-(1-4C)alkoxycarbonyl, CY1, CY2, AR1, AR2, AR2a, AR2b (not linked through nitrogen) or AR3], (2-10C)alkyl [optionally substituted other than on a carbon attached to the HET-3 ring nitrogen with one or two groups independently selected from the optional substituents defined

for R_{1a3}] and R₁₄C(O)O(2-6C)alkyl-, wherein R₁₄ is as defined hereinbefore and wherein R₁₄C(O)O group is attached to a carbon other than the carbon attached to the HET-3 ring nitrogen;

R₂₂ is cyano, -COR₁₂, -COOR₁₂, -CONHR₁₂, -CON(R₁₂)(R₁₃), -SO₂R₁₂ (provided that R₁₂ is not hydrogen), -SO₂NHR₁₂, -SO₂N(R₁₂)(R₁₃) or NO₂, wherein R₁₂ and R₁₃ are as defined hereinbelow;

R₁₂ and R₁₃ are independently selected from hydrogen, phenyl (optionally substituted with one or more substituents selected from halogen, (1-4C)alkyl and (1-4C)alkyl substituted with one, two, three or more halogen atoms) and (1-4C)alkyl (optionally substituted with one, two, three or more halogen atoms), or for any N(R₁₂)(R₁₃) group, R₁₂ and R₁₃ may be taken together with the nitrogen to which they are attached to form a 5-7 membered ring optionally with an additional heteroatom selected from N, O, S(O)_n in place of 1 carbon atom of the so formed ring; wherein the ring may be optionally substituted by one or two groups independently selected from (1-4C)alkyl (optionally substituted on a carbon not adjacent to the nitrogen by cyano, hydroxy or halo), (3-6C)cycloalkyl, (1-4C)alkanoyl, -COO(1-4C)alkyl, -S(O)_n(1-4C)alkyl (wherein n = 1 or 2), AR₁, AR₂, , -C=OAR₁, -C=OAR₂, -COOAR₁, -CS(1-4C)alkyl, -C(=S)O(1-4C)alkyl, -C(=W)NR_vR_w [wherein W is O or S, R_v and R_w are independently H, or (1-4C)alkyl], -S(O)_pAR₁ and -S(O)_pAR₂; wherein any (1-4C)alkyl chain may be optionally substituted by (1-4C)alkyl, cyano, hydroxy or halo; p = 0, 1 or 2;

AR₁ is an optionally substituted phenyl or optionally substituted naphthyl;

AR₂ is an optionally substituted 5- or 6-membered, fully unsaturated (i.e. with the maximum degree of unsaturation) monocyclic heteroaryl ring containing up to four heteroatoms independently selected from O, N and S (but not containing any O-O, O-S or S-S bonds), and linked via a ring carbon atom, or a ring nitrogen atom if the ring is not thereby quaternised;

AR_{2a} is a partially hydrogenated version of AR₂ (i.e. AR₂ systems retaining some, but not the full, degree of unsaturation), linked via a ring carbon atom or linked via a ring nitrogen atom if the ring is not thereby quaternised;

AR_{2b} is a fully hydrogenated version of AR₂ (i.e. AR₂ systems having no unsaturation), linked via a ring carbon atom or linked via a ring nitrogen atom;

AR₃ is an optionally substituted 8-, 9- or 10-membered, fully unsaturated (i.e. with the maximum degree of unsaturation) bicyclic heteroaryl ring containing up to four heteroatoms independently selected from O, N and S (but not containing any O-O, O-S or S-S bonds), and linked via a ring carbon atom in either of the rings comprising the bicyclic system;

AR3a is a partially hydrogenated version of AR3 (i.e. AR3 systems retaining some, but not the full, degree of unsaturation), linked via a ring carbon atom, or linked via a ring nitrogen atom if the ring is not thereby quaternised, in either of the rings comprising the bicyclic system;

- 5 **AR3b** is a fully hydrogenated version of AR3 (i.e. AR3 systems having no unsaturation), linked via a ring carbon atom, or linked via a ring nitrogen atom, in either of the rings comprising the bicyclic system;

AR4 is an optionally substituted 13- or 14-membered, fully unsaturated (i.e with the maximum degree of unsaturation) tricyclic heteroaryl ring containing up to four heteroatoms

- 10 independently selected from O, N and S (but not containing any O-O, O-S or S-S bonds), and linked via a ring carbon atom in any of the rings comprising the tricyclic system;

AR4a is a partially hydrogenated version of AR4 (i.e. AR4 systems retaining some, but not the full, degree of unsaturation), linked via a ring carbon atom, or linked via a ring nitrogen atom if the ring is not thereby quaternised, in any of the rings comprising the tricyclic system;

- 15 **CY1** is an optionally substituted cyclobutyl, cyclopentyl or cyclohexyl ring;

CY2 is an optionally substituted cyclopentenyl or cyclohexenyl ring;

wherein; optional substituents on AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4, AR4a, CY1 and CY2 are (on an available carbon atom) up to three substituents independently

selected from (1-4C)alkyl {optionally substituted by substituents selected independently from

- 20 hydroxy, trifluoromethyl, (1-4C)alkyl S(O)_q- (q is 0, 1 or 2), (1-4C)alkoxy,

(1-4C)alkoxycarbonyl, cyano, nitro, (1-4C)alkanoylamino, -CONR_vR_w or -NR_vR_w},

trifluoromethyl, hydroxy, halo, nitro, cyano, thiol, (1-4C)alkoxy, (1-4C)alkanoyloxy,

dimethylaminomethyleneaminocarbonyl, di(N-(1-4C)alkyl)aminomethylimino, carboxy,

(1-4C)alkoxycarbonyl, (1-4C)alkanoyl, (1-4C)alkylSO₂amino, (2-4C)alkenyl {optionally

- 25 substituted by carboxy or (1-4C)alkoxycarbonyl}, (2-4C)alkynyl, (1-4C)alkanoylamino, oxo

(=O), thioxo (=S), (1-4C)alkanoylamino {the (1-4C)alkanoyl group being optionally

substituted by hydroxy}, (1-4C)alkyl S(O)_q- (q is 0, 1 or 2) {the (1-4C)alkyl group being

optionally substituted by one or more groups independently selected from cyano, hydroxy and

(1-4C)alkoxy}, -CONR_vR_w or -NR_vR_w [wherein R_v is hydrogen or (1-4C)alkyl; R_w is

- 30 hydrogen or (1-4C)alkyl];

and further optional substituents on AR1, AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4,

AR4a, CY1 and CY2 (on an available carbon atom), and also on alkyl groups (unless

indicated otherwise) are up to three substituents independently selected from

trifluoromethoxy, benzoylamino, benzoyl, phenyl {optionally substituted by up to three substituents independently selected from halo, (1-4C)alkoxy or cyano}, furan, pyrrole, pyrazole, imidazole, triazole, pyrimidine, pyridazine, pyridine, isoxazole, oxazole, isothiazole, thiazole, thiophene, hydroxyimino(1-4C)alkyl, (1-4C)alkoxyimino(1-4C)alkyl,

- 5 halo-(1-4C)alkyl, (1-4C)alkanesulfonamido, $-\text{SO}_2\text{NRvRw}$ [wherein Rv is hydrogen or (1-4C)alkyl; Rw is hydrogen or (1-4C)alkyl]; and

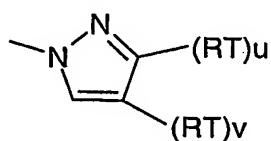
optional substituents on AR2, AR2a, AR2b, AR3, AR3a, AR3b, AR4 and AR4a are (on an available nitrogen atom, where such substitution does not result in quaternization)

(1-4C)alkyl, (1-4C)alkanoyl {wherein the (1-4C)alkyl and (1-4C)alkanoyl groups are

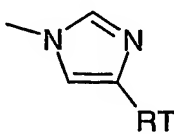
- 10 optionally substituted by (preferably one) substituents independently selected from cyano, hydroxy, nitro, trifluoromethyl, (1-4C)alkyl S(O)_q- (q is 0, 1 or 2), (1-4C)alkoxy, (1-4C)alkoxycarbonyl, (1-4C)alkanoylamino, $-\text{CONRvRw}$ or $-\text{NRvRw}$ [wherein Rv is hydrogen or (1-4C)alkyl; Rw is hydrogen or (1-4C)alkyl]}, (2-4C)alkenyl, (2-4C)alkynyl, (1-4C)alkoxycarbonyl or oxo (to form an N-oxide).

15

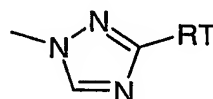
2. A compound of the formula (I) as claimed in claim 1, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein R_{1b} is HET1 wherein HET1 is selected from the structures (Za) to (Zf),



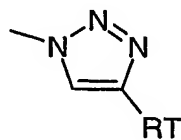
(Za)



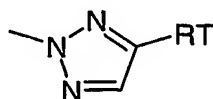
(Zb)



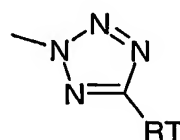
(Zc)



(Zd)



(Ze)



(Zf)

20

wherein u and v are independently 0 or 1 and RT is selected from:

(a) hydrogen;

(b) halogen;

- 25 (c) cyano;

- (d) (1-4C)alkyl;
- (e) monosubstituted (1-4C)alkyl;
- (f) disubstituted (1-4C)alkyl, and
- (g) trisubstituted (1-4C)alkyl.

5

3. A compound of the formula (I) as claimed in claim 1 or claim 2, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein R₄ is R_{4b}.

4. A compound of the formula (I) as claimed in any preceding claim or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein HET-3 is selected from HET3-T, HET3-V, HET3-Y and HET-3-W.

5. A compound of the formula (I) as claimed in any preceding claim, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein HET-3 is selected from HET3-V and HET3-Y.

6. A compound of the formula (I) as claimed in any preceding claim, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein R_{1a} is R_{1a3}.

20

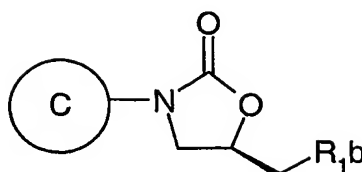
7. A compound of the formula (I) as claimed in any preceding claim, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein group C is group D.

8. A compound of the formula (I) as claimed in any one of claims 1 to 6, or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein group C is group E.

9. A compound of the formula (IA), or a pharmaceutically-acceptable salt, or an in-vivo hydrolysable ester thereof, wherein C and R_{1a} have meanings as stated in any one of the preceding claims.

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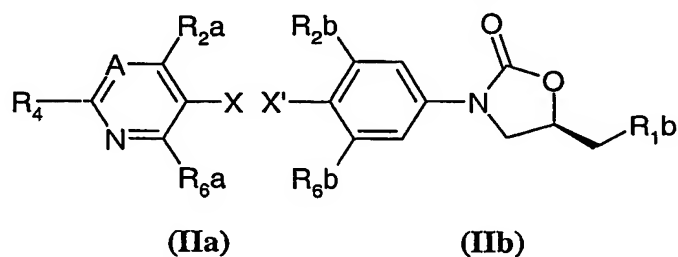


(IA)

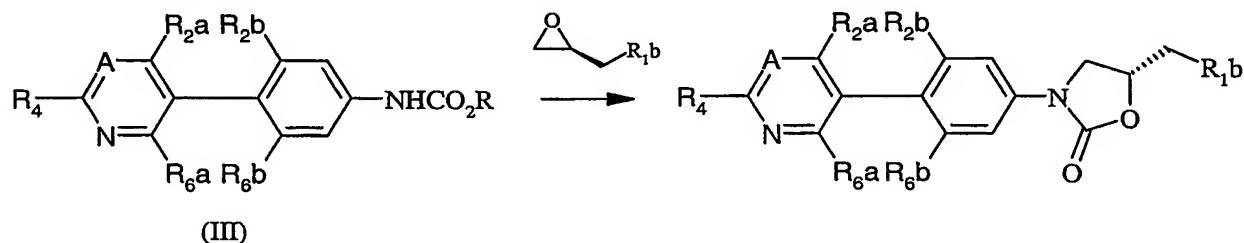
- 5 10. A pro-drug of a compound as claimed in any one of the previous claims.
- 11 A method for producing an antibacterial effect in a warm blooded animal which comprises administering to said animal an effective amount of a compound of the invention as claimed in any one of claims 1 to 9, or a pharmaceutically-acceptable salt, or in-vivo hydrolysable ester thereof.
- 10 12. A compound of the invention as claimed in any one of claims 1 to 9, or a pharmaceutically-acceptable salt, or in-vivo hydrolysable ester thereof, for use as a medicament.
- 15 13. The use of a compound of the invention as claimed in any one of claims 1 to 9, or a pharmaceutically-acceptable salt, or in-vivo hydrolysable ester thereof, in the manufacture of a medicament for use in the production of an antibacterial effect in a warm blooded animal.
- 20 14. A pharmaceutical composition which comprises a compound of the invention as claimed in any one of claims 1 to 9, or a pharmaceutically-acceptable salt or an in-vivo hydrolysable ester thereof, and a pharmaceutically-acceptable diluent or carrier.
15. A process for the preparation of a compound of formula (I) as claimed in claim 1 or pharmaceutically acceptable salts or in-vivo hydrolysable esters thereof, which process comprises one of processes (a) to (f); and thereafter if necessary:
- 25 i) removing any protecting groups;
- ii) forming a pro-drug (for example an in-vivo hydrolysable ester); and/or
- iii) forming a pharmaceutically-acceptable salt;
- 30 wherein said processes (a) to (f) are:

(a) by modifying a substituent in, or introducing a substituent into another compound of the invention;

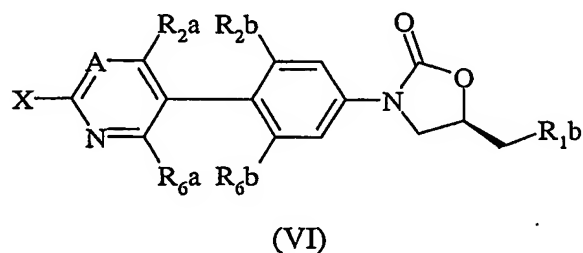
(b) by reaction of a molecule of a compound of formula (IIa) [wherein X is a leaving group useful in palladium coupling and A is either N or C-R_{3a}] with a molecule of a
 5 compound of formula (IIb) (wherein X' is a leaving group useful in palladium coupling) wherein X and X' are such that an aryl-aryl, heteroaryl-aryl, or heteroaryl-heteroaryl bond replaces the aryl-X (or heteroaryl-X) and aryl-X' (or heteroaryl-X') bonds; and X and X' are chosen to be different to lead to the desired cross-coupling products of formula (I);



(c) by reaction of a heterobiaryl derivative (III) carbamate with an appropriately substituted oxirane to form an oxazolidinone ring;



(d) by reaction of a compound of formula (VI) :



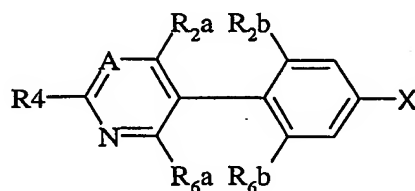
where X is a replaceable substituent with a compound of the formula (VII):



wherein T-X' is HET3 as herein above defined and X' is a replaceable C-linked substituent;
 wherein the substituents X and X' are chosen to be complementary pairs of substituents

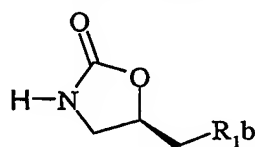
suitable as complementary substrates for coupling reactions catalysed by transition metals such as palladium(0);

(d(i)) by reaction catalysed by transition metals such as palladium(0) of a compound of formula (VIII):



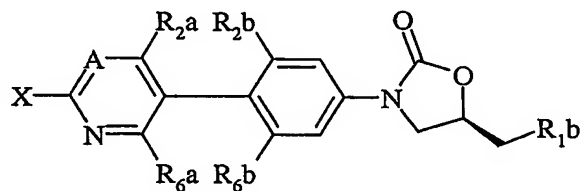
(VIII)

wherein X is a replaceable substituent with a compound of the formula (IX);



(IX)

(d(ii)) by reaction of a compound of formula (X):



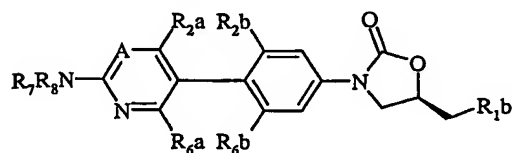
(X)

wherein X is a replaceable substituent with a compound of the formula (XI):

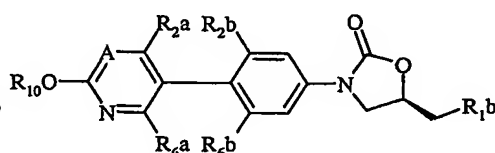
T-H

(XI)

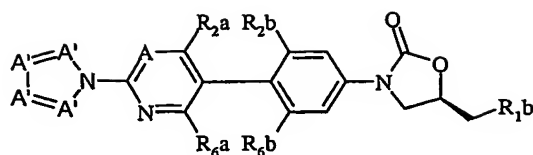
wherein T-H is an amine R_7R_8NH , an alcohol $R_{10}OH$, or an azole with an available ring-NH group to give compounds (XIIa), (XIIb), or (XIIc) wherein in this instance A is nitrogen or C- R_{3a} and A' is nitrogen or carbon optionally substituted with one or more groups R_{1a} ;



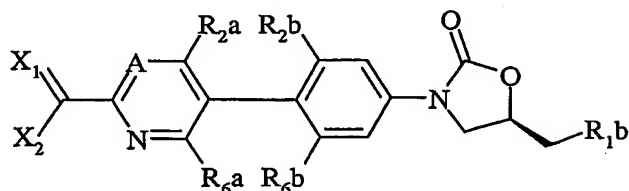
(XIIa)



(XIIb)

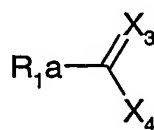


(e) by reaction of a compound of formula (XIII):



(XIII)

5 wherein X_1 and X_2 here are independently optionally substituted heteroatoms drawn in combination from O, N, and S such that $C(X_1)X_2$ constitutes a substituent that is a carboxylic acid derivative substituent with a compound of the formula (XIV) and X_3 and X_4 are independently optionally substituted heteroatoms drawn in combination from O, N, and S:



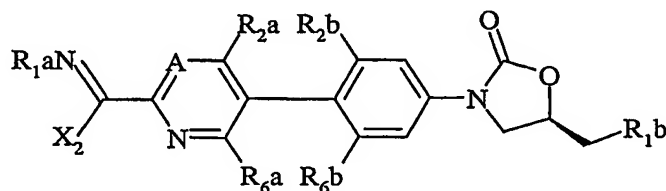
(XIV)

10

and wherein one of $C(X_1)X_2$ and $C(X_3)X_4$ constitutes an optionally substituted hydrazide, thiohydrazide, or amidrazone, hydroximidate, or hydroxamidine and the other one of $C(X_1)X_2$ and $C(X_3)X_4$ constitutes an optionally substituted acylating, thioacylating, or imidoylating agent such that $C(X_1)X_2$ and $C(X_3)X_4$ may be condensed together to form a 1,2,4-heteroatom

15 5-membered heterocycle containing 3 heteroatoms drawn in combination from O, N, and S;

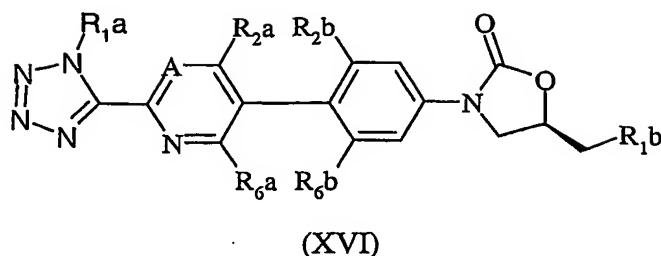
(e (i)) by reaction of a compound of formula (XV):



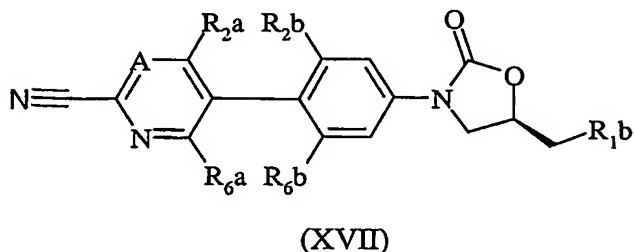
(XV)

wherein X_2 is a displaceable group with a source of azide anion to give a tetrazole (XVI);

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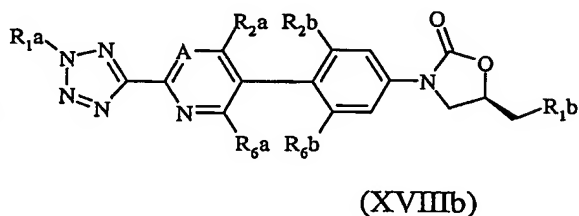
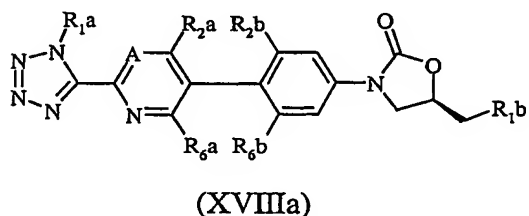


or nitriles of formula (XVII)

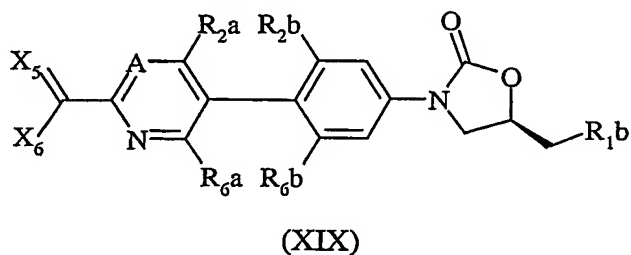


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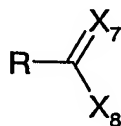
may be reacted directly with azides to give tetrazoles (XVI, $R_{1a} = H$) that are subsequently alkylated with groups $R_{1a} \neq H$ to give tetrazoles (XVIIIa) and (XVIIIb);



10 (f) by reaction of a compound of formula (XIX):



with a compound of the formula (XX):



15

wherein one of $C(X_5)X_6$ and $C(X_7)X_8$ constitutes an optionally substituted α -(leaving-group-substituted)ketone, wherein the leaving group is for example a halo-group or an (alkyl or aryl)-sulfonyloxy-group, and the other one of $C(X_5)X_6$ and $C(X_7)X_8$ constitutes an optionally substituted amide, thioamide, or amidine, such that $C(X_5)X_6$ and $C(X_7)X_8$ are

groups that may be condensed together to form a 1,3-heteroatom 5-membered heterocycle containing 2 heteroatoms drawn in combination from O, N, and S.